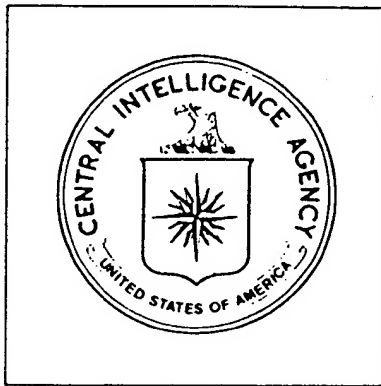


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CIA HISTORICAL REVIEW PROGRAM
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1998

Communist Aid to Third World Oil Industries

~~Secret~~

June 1973

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COMMUNIST AID TO THIRD WORLD OIL INDUSTRIES

Summary

1. From 1956 through May 1973, the European Communist countries have provided US \$1.3 billion worth of aid for the petroleum industries of the less developed countries. Initially, this aid was part of the overall Communist effort to expand relations with the Third World. In the early years, assistance generally was confined to countries of little interest to Western oil companies. For example, Afghanistan, India, and Syria were the first to welcome such assistance on a large scale. More recently the Soviets have sought to become involved with the major producers in large measure to help meet growing Communist requirements for oil and gas imports.
2. The Communist countries did not gain entry into any major oil producing country until the mid-1960s. By then the major producing countries had begun to press the Western oil companies for more favorable participatory and financial arrangements. Moreover, they had either formed or strengthened existing national oil organizations and enhanced their bargaining positions by forming international organizations of major producers.
3. Opportunities for Communist participation increased further when Western-owned assets and concessions were nationalized. By 1971, for example, Algiers had nationalized natural gas concessions and all oil pipelines and refineries and had obtained a 51% interest in French oil companies operating in Algeria. Libya and Iraq nationalized additional Western investments during 1971-73. Many such countries were not reluctant to accept a Communist presence in their oil industries because of major economic and military agreements already concluded. This publication examines the growth of Communist aid to LDC oil industries. Text and Appendix tables provide detailed statistical data on relevant aid and trade.

Note: Comments and queries regarding this publication are welcomed. They may be directed to
the Office of Economic Research,

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Discussion

Magnitude and Direction

4. From 1956 through May 1973, Communist countries extended an estimated \$1.3 billion worth of petroleum development aid to 27 less developed countries* (see Table 1). About one-half has been committed since the beginning of 1966. More than 75% has been provided by the USSR. Almost 90% has gone to Middle Eastern and South Asian countries. More than 45% has been channeled to India and Iraq and another 35% to Afghanistan, Egypt, Iran, and Syria. About one-half of the aid extended has been drawn.

5. Approximately 85% of Eastern Europe's assistance has come from Romania (\$149 million) and Czechoslovakia (\$99 million). Bulgaria, East Germany, and Hungary together have provided about \$40 million, all to Iraq. Poland extended its first such aid in 1973, about \$1 million to Yemen (Aden) for an oil survey.

Character of Communist Aid

6. More than 55% of Communist petroleum aid has been allocated for oil exploration and production** (see Table 2). Practically all the remainder has gone for transportation and refining facilities. More than one-half of East European aid has been for refineries. Among the East European countries, Romania has the most diversified program, being the world's third largest manufacturer and the second largest (although a distant second to the United States) exporter of petroleum equipment.

* Throughout this publication, the terms *less developed countries* (LDCs) and *Third World countries* are used interchangeably to mean the following: (1) all countries of Africa except the Republic of South Africa, (2) all countries of East Asia except Hong Kong and Japan, (3) all countries in Latin America except Cuba, and (4) all countries in the Middle East and South Asia.

** For a listing of Soviet and Eastern Europe projects, see Appendix Tables A-1 and A-2.

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Table 1

Soviet and East European Aid Extended
to Third World Oil Industries, by Country and Area¹
1956 - May 1973

	Million US \$		
	Total	USSR	Eastern Europe
Total	1,275	987	288
Africa	41	29	12
Algeria	12	12	....
Ethiopia	12	12	....
Ghana	1	....	1
Mali	2	2	....
Morocco	2	1	1
Nigeria	4	....	4
Somalia	2	2	....
Sudan	3	....	3
Tunisia	3	....	3
East Asia	30	....	30
Indonesia	30	....	30
Latin America	80	64	16
Argentina	46	43	3
Bolivia	1	1	....
Brazil	13	5	8
Chile	20	15	6
Middle East	647	438	209
Egypt	135	87	48
Iran	81	77	4
Iraq	299	196	104
Jordan	2	2	....
Syria	101	50	51
Turkey	24	24	....
Yemen (Aden)	3	1	2
Yemen (San'a)	1	1	....
South Asia	478	456	21
Afghanistan	137	137	....
Bangladesh	27	27	....
India	290	269	21
Pakistan	23	23	....
Sri Lanka	1	1

1. Because of rounding, components may not add to the totals shown.

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Table 2

Soviet and East European Aid
to Third World Oil Industries,
by Type of Activity
1956 - May 1973

	Total Aid		USSR		Eastern Europe	
	Million US \$	Percent of Total	Million US \$	Percent of Total	Million US \$	Percent of Total
Total	1,275	100	987	100	288	100
Production	369	29	292	30	77	27
Exploration	354	28	297	30	57	20
Refining	305	24	151	15	154	53
Transportation	233	18	233	24	....	....
Other ¹	14	1	14	1	....	....

1. Including construction of oil storage tanks, technical training, and research.

7. Soviet and East European aid often are complementary, although not necessarily by design. Oil produced from Soviet-developed fields in Syria is transported to a Czechoslovak-built refinery at Homs. A refinery being built by Prague at Basra, Iraq, will be supplied with crude from oilfields at North Rumaylah, developed with Soviet aid.

Natural Gas

8. Soviet aid worth at least \$125 million has been used to build natural gas pipelines and related facilities in Afghanistan and Iran; gas that is not locally consumed is exported to the USSR. In the early 1960s, Soviet technicians found gas deposits in northern Afghanistan estimated at more than 8.8 trillion cubic feet. In 1963, Moscow extended a \$39 million credit for pipelines from these fields to the USSR and to Soviet-built electric power and chemical fertilizer plants in Afghanistan. The project was completed in 1967. By 1970, Kabul was pumping annually 88 billion cubic feet of gas to the USSR valued at \$14 million. A second pipe-

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line under construction will raise throughput to the USSR to 140 billion cubic feet by 1974.

9. The Soviets have assisted in building a 690-mile gas pipeline from southern Iran to the USSR. The gas, a by-product of oil production, had been flared off as waste. In 1966 the USSR extended \$77 million in credits to cover technical services and equipment for a pipeline to tap and transport most of the gas to the USSR.* The pipeline was completed in October 1970, and gas deliveries began shortly afterward. By 1975 the USSR will be receiving about 350 billion cubic feet annually from Iran and by 1985 will have imported \$1 billion worth of Iranian natural gas. The two countries also are discussing construction of a second gas pipeline to the USSR.

10. Moscow is purchasing gas from Afghanistan and Iran at a delivered price of \$0.16-\$0.19 per 1,000 cubic feet, compared with the \$0.34-\$0.37 per 1,000 cubic feet it is charging its West European customers for Soviet gas. Although these imports represented less than 5% of some 7.8 trillion cubic feet produced in the USSR in 1972, they are convenient supplements to dwindling supplies in areas of the USSR adjacent to the two countries. These deliveries save the cost of bringing gas into the area from more distant fields in Soviet Central Asia and free more Soviet gas for sale in Western Europe.

Technical Assistance

11. Communist technicians in the LDCs explore for oil; assemble equipment; supervise construction of pipelines, storage tanks, and processing facilities; serve as advisers to state oil organizations; and train local technicians and engineers. Although most are employed on projects financed with economic aid credits, some are hired under individual contracts on a commercial basis.

* Soviet participation amounted to about 11% of the project's total cost of \$700 million. Some \$245 million of Western credits financed the purchase of pipe and auxiliary equipment from France, Japan, and the United Kingdom. Iran provided the balance.

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12. The number of Communist oil technicians in aid-receiving countries has risen steadily to nearly 2,000 in 1972. Some 60% were geologists and engineers working on exploration teams; the rest were mostly training LDC technicians or building refineries. The majority of the technicians were in Algeria (700), Iraq (480), Afghanistan (130), Egypt (115), Syria (115), Turkey (100), and India (85).

13. LDC technical personnel generally are trained on the job. More specialized training is provided at vocational training centers in the LDCs. More advanced training is being carried out at a large petroleum institute built in Algeria; other such institutes are being planned for Nigeria and possibly Iraq. An estimated 1,100 LDC technicians have been trained at oilfields and refineries in Eastern Europe and the USSR, and an estimated 425 petroleum engineers have graduated from Communist technical institutes.

14. Soviet technical personnel, while competent, are criticized for their narrow specialization and the excessive administrative support associated with their employment. Criticism of Soviet equipment is more widespread, and Soviet oil technology is considered to lag considerably behind that of the West. For instance, Soviet aid to India in offshore drilling in the Gulf of Cambay was halted after reaching 4,900 feet, the limit of Soviet equipment. India's most promising structures are believed to be below 15,000 feet.

15. Moscow's refineries supplied under aid, although generally adequate, are limited in the variety of products they can produce. They contain distillation units that produce many basic products but lack the more complex secondary units that yield higher quality fuels. This factor contributed to Ethiopian acceptance of an Italian offer to modernize and expand the Soviet-built Assab refinery to meet Ethiopia's needs for jet fuel and high-octane gasoline. Moscow itself may have recognized these problems. Soviet officials are considering purchasing US equipment to be used in LDCs.

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Major Programs

India

16. India, the first LDC to receive Communist aid for petroleum development, relied heavily on the USSR to help establish a national oil industry. Since 1956, Moscow has provided nearly \$270 million in credits and Romania another \$21 million. The comprehensive Soviet program has included surveys, exploration, production, design and construction of refineries, pipelines, storage facilities, and training technicians in both India and the USSR (see Figures 1 and 2). Widespread oil exploration



Figure 1. Soviet "Christmas Tree" at a Well Head in Cambay

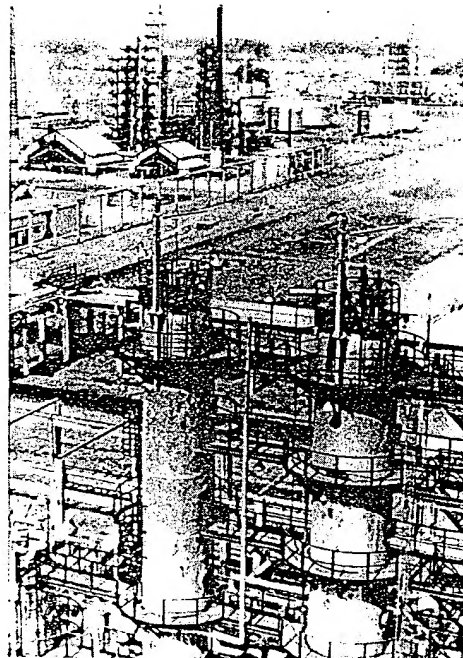


Figure 2. Soviet-Built Refinery at Barauni

was begun in the late 1950s. Strikes subsequently were made in the Punjab area of northern India, along the Anklesvar and Cambay coasts of western India, and in the Assam region of eastern India. In 1972 these areas produced one-half of India's crude oil production of 7.5 million metric tons.

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17. Three Communist-built refineries account for nearly 30% of India's refinery capacity of 24 million tons. India's first public sector refinery was a 1 million-ton plant built by Romania at Gauhati (in the Assam region) and completed in 1962. Two refineries, each with a capacity of 3 million tons, subsequently were built by the USSR at Barauni (in eastern India) and Koyali (near Cambay). These plants refine only domestic crude. Moscow, however, plans to expand Koyali's capacity to 6 million tons and provide equipment capable of refining imported crude. New Delhi is building a 2.5 million-ton refinery at Haldia (near Calcutta). Romania and France are building different parts of the facility.

18. About 85 Communist technicians were in India in 1972, most of them Soviets engaged in exploration, production, and construction of refineries. The rest were Romanians working on the Haldia refinery. As estimated 3,500 Indian geologists and oil technicians have been trained in India since 1956, and about 200 were trained in the USSR and Romania.

Iraq

19. Iraq is the first major producer to accept a comprehensive Communist aid program in the petroleum sector. Baghdad readily accepted this kind of assistance because Moscow already was its chief foreign source of development capital and its primary arms supplier. About \$300 million of petroleum aid has been extended since 1969, nearly two-thirds by the USSR. Soviet aid includes development planning; exploration; development of new oilfields; construction of refineries, pipelines, and storage facilities; and training of Iraqi technicians. The two countries also have discussed forming a joint company to transport oil by chartering foreign tankers.

20. Communist involvement developed several years after Baghdad had established a state-run oil company. Direct public involvement began in 1961. Iraq reclaimed almost all concessions granted to the Iraq Petroleum Company (IPC), including the North Rumaylah oilfields in southern Iraq, where oil had been discovered but production had not be-

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gun. Three years later, Baghdad created the Iraq National Oil Company (INOC). After years of protracted negotiations with IPC over compensation for nationalized concessions and related IPC unwillingness to expand oil production, Baghdad accepted an offer of Soviet aid in 1969. In June 1972, Baghdad nationalized IPC's assets at Kirkuk in northern Iraq.

21. Soviet exploration and development have been confined largely to North Rumaylah, which contains about one-half of Iraq's total proved reserves. Moscow has committed about \$120 million for the development of this and nearby fields. Bulgaria, East Germany, Hungary, and Romania have committed at least another \$50 million. Initial production of some 5 million tons (about 6% of Iraq's current annual production) began in 1972. Production is expected to rise to 18 million tons (about 16% of planned production in that year) when the second stage of development is completed in 1974.

22. The USSR is constructing pipelines in Iraq, one of which will connect the North Rumaylah fields to a 1.5 million-ton refinery Moscow is building in Mosul. Oil from these fields also will be pumped to a 3.5 million-ton refinery that Czechoslovakia is building at Basra. When completed, these refineries will double Iraq's current capacity to 10 million tons annually.

23. Baghdad plans to invest some \$1.4 billion in the petroleum sector during the 1970s. Available Communist credits represent more than 20% of that amount, most of which are scheduled to be used by 1975. With its predilection for Communist, particularly Soviet, assistance of all kinds, Baghdad no doubt is counting on expanded Communist participation in the petroleum sector.

Other Programs

Algeria and Libya

24. Algeria and Libya are the only other major producers where Communist countries have developed some presence in the oil industry. Soviet geologists and engineers initiated exploration activities

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in Algeria in 1963 and have been engaged in research in oil and gas production since 1966. About 200 Soviets are working in the field and as advisers to the state-owned petroleum company, Société Nationale pour la Recherche, la Production, le Transport, la Transformation, et la Commercialisation des Hydrocarbures (SONATRACH). Moscow also built the Bumidras Hydrocarbon Institute in Algiers with a grant of \$2 million and staffs it with 250 Soviet instructors (see Figure 3). Since 1967 the institute



Figure 3. The Bumidras Hydrocarbon Institute in Algeria

has graduated more than 500 technicians to work in Algeria's oil industry. An estimated 200 Romanians are engaged in drilling activities in Algeria under a joint Algerian-Romanian company.

25. The Communist presence in Libya's oil industry is small; no financial assistance has been provided. Oil technicians are numbered among the estimated 1,200 Communist technical personnel in Libya, and a Soviet survey team has been there since 1970 surveying and evaluating Libya's oil and gas resources. In March 1972 the two countries signed a technical assistance agreement calling for Soviet aid for oil prospecting, extraction, and refining; mineral and gas surveys; and general de-

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velopment of Libya's energy resources. Romania also agreed to provide technical assistance in exchange for Libyan oil.

Iran

26. Aside from the Soviet-built natural gas pipeline, Communist countries have had little involvement in Iran's oil industry. In the past few years, Czechoslovakia has sold Iran about \$4 million worth of refinery equipment. In 1966 an estimated 70 Soviet technicians, under contract to the National Iranian Oil Company, initiated offshore prospecting in Iran's part of the Caspian Sea but apparently found only small amounts of oil.

Others

27. Among the small producers, the largest Communist programs have been in Egypt and Syria. Almost \$95 million has been allocated for exploration and development in Egypt. Soviet technicians have been exploring in Egypt's Western Desert since 1957 but have not found oil. In 1971, Moscow abandoned drilling in the Siwa and Bahariya oases and moved its rigs to the Umm Barka area. More than \$40 million has been provided for the construction of oil processing facilities in Egypt. Practically all of Egypt's current refining capacity has been built with Soviet and Czech aid. Figure 4 shows Soviet and Czech facilities in Alexandria.

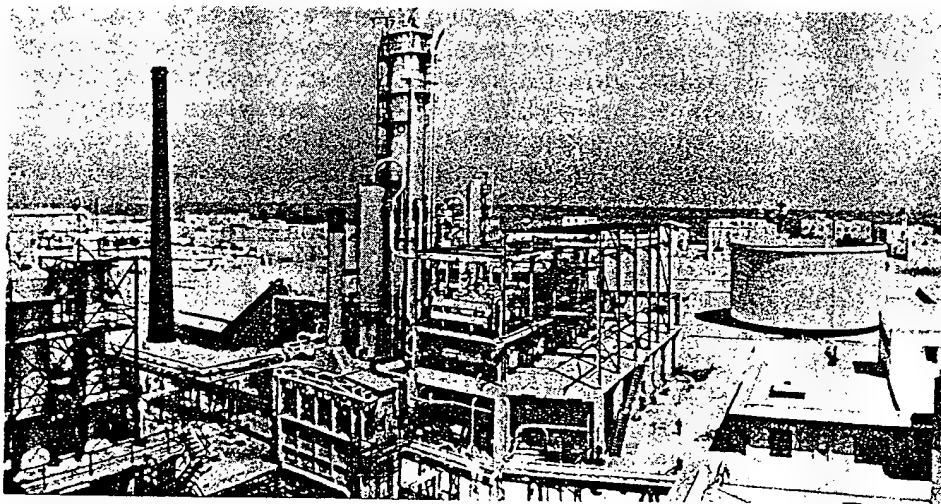


Figure 4. Soviet and Czech Facilities at the Alexandria Refinery

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28. Syria has received nearly \$50 million in oil aid from the USSR. Soviet-developed fields at As Suwayda, Qarah Shuk, and Rumaylan account for all of the 6 million tons Syria produces annually. Syria's total refining capacity of 2.7 million tons consists of a refinery at Homs built with \$41 million in aid from Czechoslovakia. Romania plans to build a 2.5 million-ton refinery in Syria under a 1972 credit. Turkey has received about \$24 million from the USSR for a 3 million-ton refinery at Izmir, which represents about one-fourth of Turkey's refining capacity. Ethiopia's sole refinery is a 3 million-ton refinery built at Assab with \$12 million of Soviet aid.

Repayment of Aid

29. Soviet credits to LDC oil industries normally are repayable in 12 years at 2.5% interest. East European credits usually require repayment over 7-10 years at 2.5%-3% interest. Although early agreements called for repayment in local goods, recent agreements -- particularly with major producing countries -- stipulate payment in oil or natural gas. These terms are also being applied to some non-petroleum aid. Oil also is being accepted as payment for technical assistance provided on current account.

30. Roughly \$3 billion in Communist aid extended to the LDCs since the mid-1960s will be repaid in oil: (a) \$1.3 billion in economic aid for petroleum and other development projects and (b) \$1.7 billion in military aid. The total includes Moscow's agreement in 1972 to accept oil in repayment for all of Iraq's outstanding economic and military aid debts. Iraq also signed an \$80 million arms agreement with Czechoslovakia in 1972, which will be repaid in oil. Most of Iran's aid debts to East European countries are being repaid in oil. Tehran's economic and military aid debts to the USSR are being amortized almost entirely with natural gas deliveries. In 1972, Romania signed an agreement to build an 1,100-unit housing project in Libya in exchange for oil. Afghanistan is repaying almost all its current economic and military aid debts to the USSR with natural gas. By 1985, Moscow will have received natural gas from Iran and Afghanistan valued at \$800 million and \$300 million, respectively, as debt repayment.

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Growing Communist Imports of LDC Oil

31. Communist oil imports from the Middle East and North Africa rose from practically nothing in the mid-1960s to about 7 million tons in 1970. The figure jumped to more than 16 million in 1972 and is expected to more than double by 1975 (see Table 3).

Table 3

Soviet and East European Imports of Crude Oil
from Middle Eastern and North African Countries¹

Million Metric Tons							
	Total	1970	1971	1972	Projected		
					1973	1974	1975
Total	124.6	7.1	10.6	16.4	25.4	30.7	34.4
USSR ²	60.9	1.8	4.7	9.0	12.0	15.7	17.7
Eastern Europe	63.7	5.3	5.9	7.4	13.4	15.0	16.7
Bulgaria	18.7	1.1	1.6	2.0	4.1	4.7	5.2
Czechoslovakia	5.3	....	0.2	0.5	1.3	1.4	1.9
East Germany	10.1	1.7	1.7	1.5	1.7	1.7	1.8
Hungary	3.9	....	0.1	0.7	0.9	1.0	1.2
Poland	1.7	....	....	....	0.3	0.6	0.8
Romania	24.0	2.5	2.3	2.7	5.1	5.6	5.8

1. Data for 1970-72 are estimates of deliveries under existing trade and aid arrangements. Projections for 1973-75 also are based on those agreements.

2. Little, if any, of the oil on the Soviet account will actually be delivered to the USSR.

An estimated 28 million tons of oil imports in 1970-75 will represent aid repayments. Much larger amounts of repayment oil will be received after 1975.

32. This growth in petroleum imports reflects a change in the pattern of Soviet oil deliveries to other Communist countries. The USSR has been a net exporters of oil since 1955, and oil sales to the West have become Moscow's chief source of hard currency -- \$750 million in 1972, for example. By 1980, Soviet oil production still may exceed domestic requirements but may not be sufficient to meet all the USSR's foreign commitments. Accordingly, Moscow has encouraged its East European clients to find additional sources of supply.

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33. About one-half the oil sent to Communist countries during 1970-75 will be on Soviet account. Most of it, however, will be shipped to Eastern Europe. These deliveries, combined with direct procurement, will account for an estimated one-third of East European requirements by 1975. Some oil on Soviet account also will be shipped to Cuba, Yugoslavia, and Spain. The USSR delivers oil to Western Europe in a swap arrangement with British Petroleum, which delivers oil to Japan. About 1.2 million tons of Nigerian oil will be shipped on Soviet account to Ghana during this period.

34. Approximately 70% of the LDC oil delivered during 1970-75 will come from Iran, Iraq, and Libya (see Table 4); all the repayment oil will be from Iran and Iraq. Moscow became the first important

Table 4

Middle Eastern and North African Exports of Crude Oil
to the USSR and Eastern Europe

					Million Metric Tons		
					Projected		
	Total	1970	1971	1972	1973	1974	1975
Total	124.6	7.1	10.6	16.4	25.4	30.7	34.4
Abu Dhabi	7.3	....	1.8	1.0	1.3	1.5	1.7
Algeria	8.6	0.9	1.2	1.4	1.7	1.7	1.7
Egypt	10.9	2.6	3.1	1.6	1.2	1.2	1.2
Iran	21.9	3.3	3.2	2.9	4.0	4.1	4.4
Iraq	45.1	....	0.4	5.2	9.7	13.3	16.5
Libya	21.9	0.1	0.5	3.3	6.0	6.0	6.0
Saudi Arabia	2.3	Negl.	....	0.1	0.2	1.0	1.0
Syria	6.6	0.2	0.4	0.9	1.3	1.9	1.9

customer for nationalized Libyan oil in 1972, when it signed a one-year agreement, renewable annually, to take 2 million tons from the Sarir field. Libya had nationalized British Petroleum's share of this oilfield in late 1971.

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Assessment and Outlook

35. The Communist countries will continue to press their efforts to expand aid for LDC petroleum development. The capital flows involved will still represent only a small part of the total moving to these countries. This assistance has been important to the Communists because (a) it has contributed to the general expansion of their relations with Third World countries, (b) it is providing new sources of oil and gas to help meet their export commitments and their growing energy requirements; and (c) it has opened new markets for machinery and equipment not salable in the West.

36. Many LDCs will continue to be receptive to Communist aid offers. This aid has been important for a number of small producers who obtained Communist equipment and technical assistance for nascent state-run industries when Western aid was unavailable or too costly. For these countries, Communist aid will continue dominant. Among the major producers, Algeria, Iran, and Libya have found Communist aid useful (although not crucial), particularly for the nationalized parts of their industries. These countries probably will continue to accept some Communist presence in their oil or natural gas industries. Producers such as Kuwait, Saudi Arabia, and others along the Arabian Peninsula are not likely to accept Communist aid under their present regimes.

37. Only in Iraq have the Communist countries, particularly the USSR, become deeply involved in a major producer's oil industry. Baghdad's interest in developing ties with the Soviet-dominated Council for Mutual Economic Assistance (CEMA) and the continuing high level of Soviet military and economic aid indicate that the Communist presence in Iraq's oil industry probably will expand over the next few years.

38. Communist imports of oil, mainly from Middle Eastern and North African countries, will continue to grow as Communist energy requirements increase. However, these imports will represent only a fraction of the total exports of the producing countries. Imports of more than 16 million tons from these

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LDC producers in 1972 represented about 2% of their total production. The share is expected to rise to about 3% in 1975. The amount exported to Eastern Europe might increase rapidly after 1975, when a 560-mile pipeline from the Adriatic through Central Europe is completed.

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Statistical Tables

Table A-1

USSR: Magnitude and Type of Aid Extended to Third World Oil Industries
1956 - May 1973

	Date of Agreement	Million US \$	Type of Aid	Terms of Repayment
Total		987.1		
Africa		28.8		
Algeria	Oct 1963	12.4	Oil tanker	Repayment over 15 years; 2.5% interest.
		3.0	Petroleum exploration	Same terms.
		4.0	Bumidras Hydrocarbon Institute	Grant.
Ethiopia	Jul 1964	2.0	Hydrocarbon research	Repayment over seven years.
Mali	Aug 1966	3.4	Oil refinery, Assab	Repayment over 17 years; 2.5% interest.
Morocco	Jul 1959	11.7	Oil and gas surveys	Repayment over 12 years; 2.5% interest.
Somalia	Mar 1961	2.0	Petroleum prospecting	Repayment over eight years; 3% interest.
Latin America	Oct 1966	0.7	Petroleum storage tanks	Repayment over 12 years; 2.5% interest.
Argentina	Jun 1961	2.0		
		64.0		
		43.3		
	Oct 1958	28.0	Petroleum equipment	Repayment over seven years; 2.5% interest.
Bolivia	Sep 1965	15.3	Petroleum equipment	Repayment over five years; 4% interest.
Brazil	Aug 1970	0.7	Oil exploration	Repayment over 10 years; 3% interest.
Chile	1966	5.0	Shale oil pilot plant	Repayment over 12 years; 3% interest.
	Jan 1967	15.0	Lubricants plant	Repayment over 8-12 years in hard currency; 3.0%-3.5% interest.
Middle East		438.0		
Egypt		87.3		
	Jul 1957	8.6	Oil drilling equipment	Repayment over five years.
	Jan 1958	4.3	Lubricating oil plant, Suez	Repayment over 12 years; 2.5% interest.
		2.0	Gasoline plant	Same terms.
		3.0	Oil refineries -- Suez, Alexandria	Same terms.
		2.0	Oil desalinization plant	Same terms.
		5.0	Geophysical and exploration work	Same terms.
		9.0	Drilling equipment	Same terms.
		0.9	Shale oil plant	Same terms.
	Sep 1964	2.0	Oil purification plant	Same terms.
		28.5	Oil exploration	Same terms.
		6.0	Lubricating oil plant, Alexandria	Same terms.
Iran	Jan 1966	16.0	Oil exploration equipment	Repayment over five years; 2.5% interest.
		77.0	Natural gas pipeline, technical services, and compressors	Repayment over 12 years in natural gas; 2.5% interest.
Iraq		195.7		
	Jun 1969	54.0	Petroleum development	Repayment over five years; 3% interest.
	Jul 1969	66.7	Petroleum development -- North Rumaylah and other areas	Repayment over seven years in crude oil; 2.5% interest.
	Apr 1971	75.0	Oil refinery and two pipelines	Repayment over 12 years in crude oil; 2.5% interest.
Jordan	1969	2.0	Oil and gas prospecting	Repayment over 12 years; 50% in convertible currency and 50% in phosphates.
Syria		49.8		
	Oct 1957	17.8	Petroleum exploration	Repayment over 12 years; 2.5% interest.
		2.0	Petroleum products storage	Same terms.
Turkey	Feb 1972	30.0	Petroleum development	N.A.
Yemen	Mar 1967	24.2	Petroleum refinery, Izmir	Repayment over 15 years; 2.5% interest.
(Aden)				
Yemen	Nov 1972	1.0	Oil survey	Repayment over 12 years; 2.5% interest.
(San'a)				
	Mar 1964	1.0	Oil survey	Repayment over 15 years; no interest.

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Table A-1
USSR: Magnitude and Type of Aid Extended to Third World Oil Industries
1956 - May 1973
(Continued)

	Date of Agreement	Million US \$	Type of Aid	Terms of Repayment
South Asia Afghanistan		456.3		
	Jul 1957	136.7	Petroleum exploration and aerial survey	Repayment over 25 years after 25 years' grace; no interest.
	Oct 1961	4.1	Petroleum and mining technical institute, Mazar-i-Sharif	Repayment over 22 years after eight years' grace; 2% interest.
		7.3	Natural gas pipeline, Shibarghan - Mazar-i-Sharif	Same terms.
		50.0	Petroleum and gas exploration and exploitation	Same terms.
	Oct 1963	38.9	Natural gas exploitation and pipeline, Shibarghan-Dushanbe	Repayment over 19 years in natural gas; 2.5% interest.
	Feb 1968	1.7	Equipment for natural gas extraction and transportation, Shibarghan	Repayment over 7-12 years after three years' grace; 2 1/2-3% interest.
		0.6	Petroleum storage depots -- Kabul, Mazar-i-Sharif, Bagram	Same terms.
	Feb 1968	2.1	Prospecting and drilling for oil and gas	Repayment over 7-12 years after one year's grace; 2 1/2-3% interest.
	Aug 1972	5.0	Exploration and geological survey	Same terms.
India		2.0	Oil refinery	N.A.
		10.0	Oil extraction and pipelines to Angot	N.A.
	May 1956	268.6	Petroleum exploration equipment	Repayment over 12 years; 2.5% interest.
	Sep 1959	3.6	Petroleum refinery -- Barauni	Same terms.
	Sep 1959	25.0	Completion of refinery, Barauni	Same terms.
	Feb 1961	9.1	Petroleum development	Same terms.
Pakistan		69.3	Oil refinery -- Koyali	Same terms.
		18.9	Petroleum exploration and production	Same terms.
		31.0	Expansion of refinery, Koyali	Same terms.
		10.0	Expansion of oil refinery, Barauni	Same terms.
	Jul 1966	1.7	Petroleum exploration and development	Same terms.
		100.0		
Sri Lanka Bangladesh		23.0	Petroleum exploration	Repayment over 12 years; 2.5% interest.
	Mar 1961	15.0	Petroleum exploration	Same terms.
	Jan 1969	8.0	Offshore geological survey	Repayment over 12 years; 2.5% interest.
	Feb 1958	0.8		
		27.2	Petroleum exploration	Repayment over 12 years; 2.5% interest.
	Mar 1961	15.0	Petroleum exploration	Same terms.
	Jan 1969	12.2		

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Table A-2

Eastern Europe: Magnitude and Type of Aid Extended to Third World Oil Industries
1956 - May 1973

	Date of Agreement	Million US \$	Type of Aid	Terms of Repayment
Total		288.1		
Bulgaria		2.0		
Iraq	Sep 1970	2.0	Oil survey	Repayment over eight years; 90% in crude oil.
Czechoslovakia		98.8		
Egypt	Apr 1965	3.0	Crude oil distillation plant, Mex	Repayment over 12 years; 2.5% interest.
		3.0	Crude oil topping plant, Mostorod	Same terms.
		15.0	Expansion of Alexandria refinery	Same terms.
Iran	Mar 1969	4.0	Oil refinery equipment	Repayment over 12 years in crude oil; 2.5% interest.
Iraq	Nov 1969	27.0	Oil refinery, Basra	Repayment over 10 years in crude oil.
Nigeria	Nov 1965	4.0	Oil refinery	Repayment over 10 years.
Syria	Mar 1957	11.3	Oil refinery, Homs	Repayment over seven years; 3% interest.
	Dec 1966	29.5	Expansion of oil refinery	N.A.
East Germany		1.5		
Iraq	Jul 1969	1.5	Oil pumping stations, North Rumaylah	Repayment over 12 years; 70% in crude oil; 2.5% interest.
Hungary		36.2		
Iraq	Oct 1969	11.2	Oil drilling -- North Rumaylah, Jambur	Repayment over seven years in crude oil; 3% interest.
Romania		25.0	Oilfield and refinery equipment	Repayment in crude oil.
Argentina	Sep 1965	148.6	Oil drilling equipment	N.A.
Brazil	May 1961	3.0	Oil drilling equipment	Repayment over 3-9 years; up to 6% interest.
		8.0	Oil drilling equipment	Repayment over eight years; 5% interest.
Chile	Jul 1971	5.5	Oil drilling equipment	Repayment of 10 years; 2.5% interest.
Egypt	Sep 1964	2.0	Oil drilling equipment	Same terms.
	Dec 1971	25.0	Petroleum development	Repayment over 10 years; 2.5% interest.
Ghana	Sep 1961	0.9	Oil exploration	Repayment over seven years; 2.5% interest.
India	Mar 1956	1.0	Oil drilling rig -- Jawala, Maki, Punjab	Same terms.
	Oct 1958	10.1	Petroleum refinery -- Gauhati, Assam	N.A.
Indonesia	Oct 1967	10.0	Oil refinery equipment, Haldia	Repayment over 10 years; 2.5% interest.
	Jun 1961	29.8	Petroleum development and refinery	Repayment over seven years in crude oil; 2.5% interest.
Iraq	Oct 1971	35.0	Petroleum development	N.A.
Morocco	Dec 1968	1.0	Oil survey	N.A.
Sudan	Dec 1971	3.0	Oil prospecting	N.A.
Syria	Jun 1968	0.3	Oil pumps	N.A.
	Oct 1972	10.0	Oil refinery	Repayment over 10 years after 2 years' grace; 2.5% interest.
Tunisia	Jul 1968	3.0	Petroleum exploration	Repayment over 10 years; 2.5% interest.
Yemen (Aden)	1968	1.0	Oil survey	N.A.
Poland		1.0		
Yemen (Aden)	Mar 1973	1.0	Oil survey	N.A.

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